



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/539,865

11/30/2005

Marc Husemann

101769-321-WCG

6679

27386 7590 12/26/2008
NORRIS, MCLAUGHLIN & MARCUS, P.A.
875 THIRD AVE
18TH FLOOR
NEW YORK, NY 10022

EXAMINER

BERNSHTEYN, MICHAEL

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

12/26/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/539,865	Applicant(s) HUSEMANN ET AL.	
	Examiner MICHAEL M. BERNSHTEYN	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/29/2005</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

1. Claim 5 is objected to because of the following informalities: the claim recites "the molar ratio of monomer mixture to initiator is less than 0.005" instead of "the molar ratio of initiator to monomer in the first phase is less than 0.005" (see the specification, page 4, lines 27-32). Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The terms "broad", "a low initiator concentration", "high on average", and "relatively low on average" in claim 1 are relative terms which render the claim indefinite. These terms are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

3. Regarding claim 1, the word "means" is preceded by the word(s) "polymerization" in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function. However, since no function is specified by the word(s) preceding "means," it is impossible to determine the equivalents of the element, as

Art Unit: 1796

required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967).

4. Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term “tempo” in claim 7 is used by the claim to mean “regulator”, while the accepted meaning is “1. The rate of speed of a musical piece or passage indicated by one of a series of directions (as largo, presto, or allegro) and often by an exact metronome marking, or 2. Rate of motion or activity” (see <http://www.merriam-webster.com/dictionary/tempo>). The term is indefinite because the specification does not clearly redefine the term.

5. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors. For, example, claim 1, the last two lines, recites three times the word “further”. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 1796

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 1796

6. Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Basu et al. (U. S. Patent 4,501,845).

With regard to the limitations of claims 1-4, and 9, Basu discloses a process of preparing an emulsion polymerized latex addition polymer in which the molecular weight of the polymer is widely divergent and the Tg of the polymer is between 10⁰C and -60⁰ C, the improvement in which a monomer mixture which is at least predominantly of α,β -monoethylenically unsaturated monomers and is polymerized by a **free radical method**, the polymerization being conducted in stages in which the **first stage** of the polymerization is conducted in the absence of a chain transfer agent, whereby a high molecular weight polymer fraction is obtained, **and at least one additional stage of the polymerization** is conducted in the presence of the chain transfer agent, whereby at least one low molecular weight fraction is obtained, in which from about 5 to 70% of the monomers are polymerized to give a fraction which has a M_n of between about 500 and 100,000 and from about 30% to 90% of the monomers are polymerized to give a fraction which has a M_n of about 100,000 to at least 2,000,000 and the ratio of M_w /M_n is from 15 to 150 (claim1, col. 17, lines 28-40).

With regard to the limitations of claim 5, Basu discloses that the molar ratio of initiator to monomer in the first phase is less than 0.005, which is within the claimed range (Example 1, col. 12, lines 47-53).

With regard to the limitations of claim 6, Basu discloses that the addition of Solution B, which contains an initiator ammonium persulfate, takes place in two or more steps (Example 1, col. 6, line 34 through col. 7, line 26).

With regard to the limitations of claim 7, Basu discloses that examples of well know chain regulators or chain transfer agents which may be used include short- and long-chain alkyl mercaptans, e.g. n-amyl mercaptan, n-dodecyl and, t-dodecyl mercaptan, dialkyl xanthogen disulfides, e.g., diisopropyl xanthogen disulfide, mercaptocarboxylic acids such as mercaptopropionic acid, alkaryl mercaptan such as benzyl mercaptan, long-chain alcohols such as lauryl alcohol and t-octyl alcohol, halogenated hydrocarbons, and substituted mercaptans, such as hydroxyethyl mercaptan (col. 6, lines 56-68).

With regard to the limitations of claim 8, Basu discloses that after 1274 g. of Mixture A and 46 g. of Solution B have been added to the reaction flask over **a 75 minute period**, the additions are discontinued. After **a 5 minute** hold period at 82⁰.-84⁰ C, 5 g. of 3-mercaptopropionic acid (3-MPA) are gradually added to the remaining Mixture A and the simultaneous gradual addition of Mixture A and Solution B to the reaction flask is resumed (Example 1, col. 12, line 64 through col. 13, line 3). Therefore the regulator (3-MPA) was added no earlier than after one hour's polymerization time (75 min + 5 min), but no later than two hours before the end of polymerization, which fully correspond the limitations of claim 8.

With regard to the limitations of claim 10, Basu discloses that acrylic copolymers are preferred, but the invention may also be applied to the preparation of other polymers of addition polymerized unsaturated monomers at least predominantly composed of α,β -monoethylenically unsaturated monomers. Examples are polyvinyl acetate and a copolymer of ethylene and **vinyl acetate**, optionally with small amounts of other

Art Unit: 1796

monomers such as hydroxyethyl, hydroxypropyl acrylate and methacrylate, N-methylol acrylamide, **acrylamide**, acrylic acid, methacrylic acid, or itaconic acid, and up to 20% of another optional copolymerizable monomer (col. 3, lines 55-65).

With regard to the limitations of claim 11, Basu discloses that examples of optional **cross-linking monomers** that may be used in amounts of 0-2%, preferably 0-0.5% of the total monomers, include any copolymerizable compound which contains two or more non-conjugated points of ethylenic unsaturation (col. 3, lines 33-37). Activators or promoters (col. 6, lines 51-55), fillers, pigments, etc also can be used (col. 7, lines 33-38).

7. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Basu et al. (U. S. Patent 4,501,845) as applied to claims 1-11 above and further in view of Williams et al. (U. S. 4,810,523)

The disclosure of Basu's reference resided in § 6 is incorporated herein by reference.

With regard to the limitations of claims 12 and 13, Basu does not disclose a pressure-sensitive adhesive comprising the polyacrylate and an adhesive tape comprising a pressure-sensitive adhesive on one or both sides of a carrier film.

Williams discloses a production of acrylate-based pressure-sensitive adhesives by polymerization which is initiated via exposure of monomers to ionizing radiation. The invention further relates to the production of such adhesives in a low-solvent or solventless form suitable for hot melt application (col. 1, lines 9-15). The polymerization reaction may be carried out at a first dose rate for a period of time and then the dose

Art Unit: 1796

rate changed for the remainder of the polymerization in order to produce an essentially bimodal molecular weight distribution. The **polyacrylate** solution is coated onto a substrate, e.g., a backing or webbing such as tape or label stock. The volatile solvent is then evaporated, thereby leaving a nearly solvent-free layer of adhesive. The practical manufacture of pressure-sensitive adhesive products such as **tapes**, labels and others also often requires the use of prime and/or release coatings or inclusion of a release coated interlayer(col. 2, lines 54-61).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use Basu's polyacrylates as a pressure-sensitive adhesive which can be applied on one or both sides of a carrier film to obtain the adhesive tape as taught by Williams because these polyacrylates are substantially identically being obtained using substantially identical monomers, chain transfer agents, initiators, bimodal molecular weight distribution, etc., and thus to arrive at the subject matter of instant claims 12 and 13.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL M. BERNSHTEYN whose telephone number is (571)272-2411. The examiner can normally be reached on M-Th 8-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone

Art Unit: 1796

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael M. Bernshteyn/
Examiner, Art Unit 1796

/M. M. B./
Examiner, Art Unit 1796